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Selected Claims / "Radial-hinge Mechanism"...

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[Where applicable, I also include part number designations from the Figures]

31. A radial-hinge mechanism based upon a geometric design derived from a circle of delineations interconnected by chords end-to-end in regular patterns with the delineations also locating initial peripheral points of the mechanism, the mechanism comprising:

one or more elongated members interwoven and interconnected around a substantially circular inner-aperture to provide a resultant assembly with a fully-integrated framework with a variable propensity for pivoting open upon a generally circular hinge-core made up of an even number of at least eight [twelve?] hinge crossmembers, and

one or more interconnections interconnecting the one or more elongated members.

32. The mechanism of claim 31, wherein the fully-integrated framework is defined by a two-dimensional pattern.
33. The mechanism of claim 31, wherein the elongated members are one of rigid, semi-rigid and elastic.
34. The mechanism of claim 33, wherein each of the elongated members is made of at least one of a plastic, a fiberglass, a wood and a metal.
35. The mechanism of claim 34, wherein the interconnections are achieved by at least one of connectors, fusion, welding and glueing.
36. The mechanism of claim 35, wherein the interconnections are two-point interconnections that interconnect ends of two of the elongated members.
37. The mechanism of claim 36, wherein the two-point interconnections are located at peripheral points [2006b], and wherein the elongated members are a plurality of spokes of substantially equal length.
38. The mechanism of claim 37, wherein the peripheral points [2006b] map out two circles, with each of the circles occupying separate spaced parallel planes, and wherein one-half of the peripheral points are in one of the planes and the other one-half of the peripheral points are in the remaining one of the planes.
39. The mechanism of claim 38, wherein the interconnections are confirmed with two-point spoke-end connectors.
40. The mechanism of claim 39, wherein the spoke-end-connectors are dual-port receptacles designed to receive and retain ends of two of the spokes.

41. The mechanism of claim 40, wherein the dual-port receptacles [404] are comprised of caps with dual-holed grommet-inserts [807].
42. The mechanism of claim 41, wherein the spokes [402] are substantially straight, cylindrical and have a consistent cross-section.
43. The mechanism of claim 41, wherein the grommet holes [808] have a diameter less than that of the end of the spokes [402].
44. The mechanism of claim 39, wherein the two-point spoke-end-connectors [404] are each variably joined with other two-point end-connectors [404] to provide a four-point inter-hinge-connector [4504] utilized in the stacking of two or more of the radial-hinge mechanisms.
51. The mechanism of claim 31, wherein the interconnections are made with a double c-clip device [900] with a point-hinge swivel.
52. The mechanism of claim 31, wherein the inner-aperture [407] is transversely occupied by a shaft [5305] and the mechanism interfaces with the shaft [5305] to one of clutch, brake and grip the shaft [5305].
53. The mechanism of claim 31, wherein the framework is fully or partially enclosed by a cover [4800] to create a radial-hinge-based chamber.
54. The mechanism of claim 53, wherein the cover [4800] opens and closes with a bellows action while acting in tandem with movements of the mechanism [400].
- *55. The mechanism [400] of claim 53, wherein the cover [4800] (add: "*is expanded into a compound cover*[5100] *to accommodate*") ~~accommodates~~ two or more stacked ones [5000] of the radial-hinge mechanisms [400].
56. The mechanism of claim 55, wherein the cover [5100] opens and closes with a bellows action, while acting in tandem with movements of the stacked [5000] mechanisms [400].
57. The mechanism of claim 31, wherein the framework further includes direct attachments of at least one of a blade [5403] and a prop for achieving at least one of fluid movement, cutting and drilling. [as in Fig. 54]
58. The mechanism of claim 31, wherein the hinge-core [408] further includes a constraining band [2902] to one of restrict and enhance movement of the mechanism.
59. The mechanism of claim 58, wherein the band [2902] is elastic.
60. The mechanism of claim 58, wherein the band [2902] releases at a predetermined threshold of applied force.

* with correction of Aug.9, 2006... after the fact. Probably not ammendable?